



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/014,509 | 12/14/2001 | Masayoshi Suzuki | 382684/00 | 3599 |
| 7590 | 01/23/2004 | | | EXAMINER |
| McGinn & Gibb, PLLC 8321 Old Courthouse Road, Suite 200 Vienna, VA 22182-3817 | | | ERDEM, FAZLI | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2826 | |

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/014,509 | MASAYOSHI ET AL. |
| | Examiner Fazli Erdem | Art Unit 2826 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any armed patent term adjustment. See 37 CFR 1.704(b). 42Yp191Xe

Status

- 1) Responsive to communication(s) filed on 22 October 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-3,6,9,10,14,16,19 and 20 is/are rejected.
- 7) Claim(s) 4,5,7,8,11-13,15,17 and 18 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) Interview Summary (PTO-413) Paper No(s) _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 4,5,7, 8, 11-13, 15, 17 and 18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6, 9, 10, 14, 16, 19 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Ham (6,466,291) in view of Song et al. (6,512,568) further in view of Shinjo et al. (5,495,352) further in view of Fukumoto et al. (6,583,837) further in view of Choi et al. (6,535,265).

Regarding Claims 1-3, 6, 9, 10, 14, 16, 19 and 20, Ham discloses an in-plane switching mode liquid crystal display device having plurality of pixel regions where a first portion of one pixel region has alignment direction clockwise inclined relative to the extension direction of the data electrode, and a second portion of the pixel region has alignment direction counterclockwise included relative to the extension direction of the data electrode. Ham fails to disclose the required pixel electrode structure, required electrode structure in the required configuration, protrusion and the protrusion in the required central configuration. However, Song et al. disclose

a liquid crystal display having wide viewing angle, where the required pixel electrode structure is disclosed. Furthermore, Shinjo et al. disclose a liquid crystal display device with stripe-shaped unevenness on the electrodes where the required electrode structure configuration is disclosed. Fukumoto et al. disclose a liquid crystal display device including pixel electrodes with slits and protrusion between common electrode and alignment film where the required protrusion is disclosed. Finally, Choi et al. disclose a liquid crystal display panel having wide viewing angle and method of fabricating the same where the protrusion in the required central configuration is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required pixel electrode, the required pixel electrode configuration, protrusion and the protrusion in the required central configuration in Ham as taught by Song et al., Shinjo et al., Fukumoto et al., and Choi et al. respectively, in order to have a liquid crystal display device with better performance.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (703) 305-3868. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Art Unit: 2826

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Starting February 4, 2004, Examiner Fazli Erdem's phone number will be changed to (571) 272-1914 and his SPE Nathan Flynn's phone number will be changed to (571) 272-1915

FE
January 11, 2004

A handwritten signature in black ink, appearing to read "Fazli Erdem".